

Decrease of digested sludge at sewage plants by direct ozonization at activated sludge processes

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AB The decrease of digested sludge at sewage plants is carried out by direct ozonization, whereby ozone is fed together with the oxygen or air flow to the activated sludge process. The ozone is appointed with 5-50 g ozone per 1 kg org. dry substance from activated sludge and per diem. The ozone is supplied directly into the activated sludge tank by ozone-resistant devices like teflon membranes, gas-priming submerged pumps, or rotary pumps, which are circulating simultaneously the sludge and the wastewater flow at the nitrification tank, after passing through the denitrification tank. Optionally, the ozone supply is carried out via a side flow, that bears a liq. and sludge flow to sewage flow ratio of 1:1 up to 1:3. The aeration and the ozonization leads to a balance between growing and destroying of microorganism in the activated sludge. Ozone is absorbed immediately by the liq. and reacts with the sludge flocs by attacking the cell walls of the microorganisms, and destroying them. Afterwards a chem. phosphate ptn. is conducted.

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD
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